**IT Applications Unit 3, AOS 1, Online Communities**

1. Complete the following, from pgs, 18-28: **Network hardware and software**

**Networks are classified according to below and we will study the following:**

1. **Network Categories: LAN, WAN**
2. **Network Architecture, client-server; peer-to-peer; internet peer-to-peer; intranet**
3. **Network communication standards**
4. **Network hardware and software**
5. **Transmission media**
6. **Network security**

**Network hardware and software**

**Network Operating systems**

1. Describe the role of the network operating system.

The role of the network operating system is to control the traffic on the network and define how devices will communicate with each other.

1. What are the typical tasks of network server software?

The typical tasks of a network server software is controlling file access, managing print queues, keeping track of users through their user ID’s and passwords, authenticating access to network servers and maintaining a log of network usage and problems.

1. What is the role of network client software?

Its role is to establish a connection, through the network interface card, between the workstation and other devices on the network.

1. List the 3 providers of network operating systems.

* Microsoft Windows Vista
* Windows 7 and windows server 2008
* Novell and Apple

**Web client software**

1. List the typical client software

Web client software.

**Software for setting up websites**

1. Describe the role of http protocol.

Its role is transmit and receive information from the internet.

1. What is the role of web server software?

Its role is to provide content using the http protocol.

1. What is the role of a proxy server?

Its role is to sit between the client and the webserver. It also can be used to speed up networking traffic and can also be configured by network managers to block certain websites.

* 1. What are the advantages of using a proxy server?

The advantages are that it can speed up network traffic.

1. Describe the role of the following software:
   1. SMTP

Its role is to handle the sending and receiving of client emails.

* 1. POP3

Its role is to store the messages.

* 1. FTP

Its role is to enable the downloading and uploading of files between the computers on the internet.

* 1. Web software applications

Its role is to be designed for use on a website and include blogging software, forums and wiki’s.

**Cross-platform web software**

1. What is meant by a Cross-platform application? List egs.

It means that by using an execution engine and complier with libraries so that it runs identically on all machines. Examples are Flash and Java.

1. What is adobe flash?

Adobe flash is a software tool that enables software developers to combine interactive content with text, three-dimensional graphics, audio and video.

**Network Hardware**

Describe the characteristics and role of the following network hardware devices:

1. Network interface card

It is used to link a computer or recourse to a network.

1. Wireless access point

Used to connect wireless communications devices to a wired or wireless network.

1. Switches

Used to store the address of every device down each wire leading from the switch.

1. Routers

Used to allow several remote LAN’s into one bigger LAN.

1. modems

Used to send a computers digital signal over a telephone line.

For each of the following modem types, in a table indicate the following:

Modem download speed

1. dial up modem

56Kbps

ii) Digital modems:

* + 1. DSL

Mbps

* + 1. ADSL & ADSL 2 +

8Mbps and 20Mbps

1. cable modems

30Mbps

6 How does a digital modem differ from a dial-up modem?